

LITTLE COLORADO RIVER BASIN

09386300 LITTLE COLORADO RIVER BELOW ZION RESERVOIR, NEAR ST. JOHNS, AZ

LOCATION.--Lat 34°36'17", long 109°29'19", in SE1/4NW1/4 sec. 21, T.14 N., R.27 E., Apache County, Hydrologic Unit 15020002, on left bank 0.50 mi downstream from Zion Reservoir, 10 mi northwest of St. Johns.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--Sept. 1998 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 5,530 ft above sea level, from topographic map.

REMARKS.--Records fair. Flow regulated by many small reservoirs - combined capacity, about 15,500 acre-ft. Diversions for irrigation of about 6,700 acres above station. Published under station number 09386100, from Sept. 1998 to Sept. 30, 2003.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft³/s Sept. 11, 2002, gage height, 11.84 ft, from an extension of the rating curve based on the weir equation for submerged weir flow. Minimum daily discharge, no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 7	2345	*284	*5.98

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.34	0.00
MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.20	0.00
MAX	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	136	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
0.46	0.04	0.22	0.32	0.13	0.07
0.02	0.00	0.00	0.08	9.22	28.1
0.39	60.0	196	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00

SUMMARY STATISTICS FOR 2004 CALENDAR YEAR FOR 2005 WATER YEAR WATER YEARS 1998 - 2005

ANNUAL TOTAL	58.72	68.39	3.21
ANNUAL MEAN	0.16	0.19	16.5
HIGHEST ANNUAL MEAN			0.13
LOWEST ANNUAL MEAN			2140
HIGHEST DAILY MEAN	39 Aug 15	29 Aug 8	Sep 12 2002
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Sep 11 1998
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Sep 11 1998
ANNUAL RUNOFF (AC-FT)	116	136	2320
10 PERCENT EXCEEDS	0.00	0.00	0.35
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

WATER-QUALITY RECORDS

PERIOD OF RECORD--September 1998 to current year.

INSTRUMENTATION-- Automatic pumping sampler installed September 1998.

REMARKS-- Suspended-sediment discharge computed from sample data and by interpretation of a sample based suspended-sediment and streamflow discharge curve.

SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	0.00	---	---	0.00	---	---	0.00	---	---
2	0.00	---	---	0.00	---	---	0.00	---	---
3	0.00	---	---	0.00	---	---	0.00	---	---
4	0.00	---	---	0.00	---	---	0.00	---	---
5	0.00	---	---	0.00	---	---	0.00	---	---
6	0.00	---	---	0.00	---	---	0.00	---	---
7	0.00	---	---	0.00	---	---	0.00	---	---
8	0.00	---	---	0.00	---	---	0.00	---	---
9	0.00	---	---	0.00	---	---	0.00	---	---
10	0.00	---	---	0.00	---	---	0.00	---	---
11	0.00	---	---	0.00	---	---	0.00	---	---
12	0.00	---	---	0.00	---	---	0.00	---	---
13	0.00	---	---	0.00	---	---	0.00	---	---
14	0.00	---	---	0.00	---	---	0.00	---	---
15	0.00	---	---	0.00	---	---	0.00	---	---
16	0.00	---	---	0.00	---	---	0.00	---	---
17	0.00	---	---	0.00	---	---	0.00	---	---
18	0.00	---	---	0.00	---	---	0.00	---	---
19	0.00	---	---	0.00	---	---	0.00	---	---
20	0.00	---	---	0.00	---	---	0.00	---	---
21	0.00	---	---	0.00	---	---	0.00	---	---
22	0.00	---	---	0.00	---	---	0.00	---	---
23	0.00	---	---	0.00	---	---	0.00	---	---
24	0.00	---	---	0.00	---	---	0.00	---	---
25	0.00	---	---	0.05	2.0	<0.01	0.00	---	---
26	0.00	---	---	0.00	---	---	0.00	---	---
27	0.00	---	---	0.00	---	---	e0.00	---	---
28	0.00	---	---	0.00	---	---	e0.00	---	---
29	0.00	---	---	0.00	---	---	0.00	---	---
30	0.00	---	---	0.00	---	---	0.00	---	---
31	0.00	---	---	---	---	---	0.00	---	---
TOTAL	0.00	---	---	0.05	---	---	0.00	---	---

e Estimated

< Actual value is known to be less than the value shown

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	0.00	---	---	e0.00	---	---	0.00	---	---
2	0.00	---	---	e0.00	---	---	0.00	---	---
3	0.00	---	---	0.00	---	---	0.00	---	---
4	0.00	---	---	0.00	---	---	0.00	---	---
5	0.00	---	---	0.00	---	---	0.00	---	---
6	0.00	---	---	0.00	---	---	0.00	---	---
7	0.00	---	---	0.00	---	---	0.00	---	---
8	0.00	---	---	0.00	---	---	0.00	---	---
9	0.00	---	---	0.00	---	---	0.00	---	---
10	0.00	---	---	0.00	---	---	0.00	---	---
11	0.00	---	---	0.00	---	---	0.00	---	---
12	0.00	---	---	0.00	---	---	0.00	---	---
13	0.00	---	---	0.00	---	---	0.00	---	---
14	0.00	---	---	0.00	---	---	0.00	---	---
15	0.00	---	---	0.00	---	---	0.00	---	---
16	0.00	---	---	0.00	---	---	e0.00	---	---
17	0.00	---	---	0.00	---	---	0.00	---	---
18	0.00	---	---	0.00	---	---	0.00	---	---
19	0.00	---	---	0.00	---	---	0.00	---	---
20	0.00	---	---	e0.00	---	---	0.00	---	---
21	0.00	---	---	e0.00	---	---	0.00	---	---
22	0.00	---	---	e0.00	---	---	0.00	---	---
23	0.00	---	---	e0.00	---	---	0.00	---	---
24	0.00	---	---	e0.00	---	---	0.00	---	---
25	0.00	---	---	0.00	---	---	0.00	---	---
26	0.00	---	---	0.00	---	---	0.00	---	---
27	0.00	---	---	0.00	---	---	0.00	---	---
28	0.00	---	---	0.00	---	---	0.00	---	---
29	0.00	---	---	---	---	---	0.00	---	---
30	0.00	---	---	---	---	---	0.00	---	---
31	0.00	---	---	---	---	---	0.00	---	---
TOTAL	0.00	---	---	0.00	---	---	0.00	---	---

e Estimated

WATER-QUALITY RECORDS

SUSPENDED SEDIMENT DISCHARGE, TONS PER DAY, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	0.00	---	---	0.00	---	---	0.00	---	---
2	0.00	---	---	0.00	---	---	0.00	---	---
3	0.00	---	---	0.00	---	---	0.00	---	---
4	0.00	---	---	0.00	---	---	0.00	---	---
5	0.00	---	---	0.00	---	---	0.00	---	---
6	0.00	---	---	0.00	---	---	0.00	---	---
7	0.00	---	---	0.00	---	---	0.00	---	---
8	0.00	---	---	0.00	---	---	0.00	---	---
9	0.00	---	---	0.00	---	---	0.00	---	---
10	0.00	---	---	0.00	---	---	0.00	---	---
11	0.00	---	---	0.00	---	---	0.00	---	---
12	0.00	---	---	0.00	---	---	0.00	---	---
13	0.00	---	---	0.00	---	---	0.00	---	---
14	0.00	---	---	0.00	---	---	0.00	---	---
15	0.00	---	---	0.00	---	---	0.00	---	---
16	0.00	---	---	0.00	---	---	0.00	---	---
17	0.00	---	---	0.00	---	---	0.00	---	---
18	0.00	---	---	0.00	---	---	0.00	---	---
19	0.00	---	---	0.00	---	---	0.00	---	---
20	0.00	---	---	0.00	---	---	0.00	---	---
21	0.00	---	---	0.00	---	---	0.00	---	---
22	0.00	---	---	0.00	---	---	0.00	---	---
23	0.00	---	---	0.00	---	---	0.00	---	---
24	0.00	---	---	0.00	---	---	0.00	---	---
25	0.00	---	---	0.00	---	---	0.00	---	---
26	0.00	---	---	0.00	---	---	0.00	---	---
27	0.00	---	---	0.00	---	---	0.00	---	---
28	0.00	---	---	0.00	---	---	0.00	---	---
29	0.00	---	---	0.00	---	---	0.00	---	---
30	0.00	---	---	0.00	---	---	0.00	---	---
31	---	---	---	0.00	---	---	---	---	---
TOTAL	0.00	---	---	0.00	---	---	0.00	---	---

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	0.00	---	---	0.00	---	---	0.00	---	---
2	0.00	---	---	0.00	---	---	0.00	---	---
3	0.00	---	---	0.00	---	---	0.00	---	---
4	0.00	---	---	0.00	---	---	0.00	---	---
5	0.00	---	---	0.00	---	---	0.00	---	---
6	0.00	---	---	0.00	---	---	0.00	---	---
7	0.00	---	---	14	1230	808	0.00	---	---
8	0.00	---	---	29	3130	1020	0.00	---	---
9	0.00	---	---	0.07	217	0.05	0.00	---	---
10	0.00	---	---	0.01	107	<0.01	0.00	---	---
11	0.00	---	---	25	2450	500	0.00	---	---
12	0.00	---	---	0.22	269	0.20	0.00	---	---
13	0.00	---	---	0.03	130	0.01	0.00	---	---
14	0.00	---	---	0.01	81	<0.01	0.00	---	---
15	0.00	---	---	0.00	---	---	0.00	---	---
16	0.00	---	---	0.00	---	---	0.00	---	---
17	0.00	---	---	0.00	---	---	0.00	---	---
18	0.00	---	---	0.00	---	---	0.00	---	---
19	0.00	---	---	0.00	---	---	0.00	---	---
20	0.00	---	---	0.00	---	---	0.00	---	---
21	0.00	---	---	0.00	---	---	0.00	---	---
22	0.00	---	---	0.00	---	---	0.00	---	---
23	0.00	---	---	0.00	---	---	0.00	---	---
24	0.00	---	---	0.00	---	---	0.00	---	---
25	0.00	---	---	0.00	---	---	0.00	---	---
26	0.00	---	---	0.00	---	---	0.00	---	---
27	0.00	---	---	0.00	---	---	0.00	---	---
28	0.00	---	---	0.00	---	---	0.00	---	---
29	0.00	---	---	0.00	---	---	0.00	---	---
30	0.00	---	---	0.00	---	---	0.00	---	---
31	0.00	---	---	0.00	---	---	---	---	---
TOTAL	0.00	---	---	68.34	---	---	0.00	---	---

< Actual value is known to be less than the value shown